

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-14. (canceled)

15. (Currently amended) An exhaust gas aftertreatment device for a motor vehicle, said device comprising:

a reforming unit ~~[(1)]~~ that ~~is designed to~~ generates hydrogen by at least one of steam reforming and partial oxidation of hydrocarbons, ~~wherein the said~~ reforming unit ~~(1)~~ is being arranged directly, in a full flow of exhaust gas, in a main exhaust gas stream ~~[(4)]~~ of an internal combustion engine, ~~and wherein~~ whereby steam and residual oxygen ~~which that~~ are ~~required~~ necessary for reforming are derived from said exhaust gas;

an NO_x storage catalytic converter ~~(2)~~ ~~that is~~ arranged in the main exhaust gas stream ~~[(4)]~~ downstream of the reforming unit, ~~(1)~~ ~~wherein the said~~ NO_x storage catalytic converter ~~(2)~~ ~~is designed~~ being operable to remove NO_x from lean exhaust gas by storing ~~[[the]]~~ NO_x as the lean exhaust gas flows through NO_x storage catalytic converter, and to generate N₂ by reducing stored NO_x when reducing exhaust gas flows through the NO_x storage catalytic converter; and

an SCR catalytic converter ~~(3) that is~~ arranged in the main exhaust gas stream ~~[(4)]~~ downstream of the NO_x storage catalytic converter ~~[(2)]~~, said SCR catalytic converter ~~[(3)] is designed~~ being operable to reduce NO_x contained in the exhaust gas using NH₃ that has been generated by the NO_x storage catalytic converter.

16. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 15, further comprising an oxidation catalytic converter that is arranged downstream of the SCR catalytic converter ~~[(3)]~~.

17. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 16, further comprising a three-way catalytic converter ~~[(7)]~~ that is arranged immediately downstream of the reforming unit.

18. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 15, further comprising a three-way catalytic converter ~~[(7)]~~ that is arranged immediately downstream of the reforming unit.

19. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 15, wherein the reforming unit ~~(1) is designed as~~ comprises a catalytically active particulate filter.

20. (Currently amended) An exhaust gas aftertreatment device for a motor vehicle, said device comprising:

a reforming unit ~~[(1)]~~ that ~~is designed to~~ generates hydrogen by at least one of steam reforming and partial oxidation of hydrocarbons, ~~wherein the said~~ reforming unit ~~(1) is~~ being arranged directly, in a full flow of the exhaust gas, in a main exhaust gas stream ~~[(4)]~~ of an internal combustion engine, ~~and wherein~~ whereby steam and residual oxygen ~~which that~~ are necessary required for reforming are derived from said exhaust gas;

an NO_x storage catalytic converter ~~(2) that is~~ arranged in the main exhaust gas stream ~~[(4)]~~ downstream of the reforming unit ~~[(1)]~~, ~~wherein said~~ ~~[[the]]~~ NO_x storage catalytic converter ~~(2) is designed~~ being operable to remove NO_x from lean exhaust gas by storing ~~[[the]]~~ NO_x as the lean exhaust gas flows through the NO_x storage catalytic converter, and to generate N₂ by reducing ~~[[the]]~~ stored NO_x when reducing exhaust gas flows through the NO_x storage catalytic converter; and

an SCR catalytic converter ~~(3) that is~~ arranged in the main exhaust gas stream ~~[(4)]~~ downstream of the reforming unit ~~[(1)]~~ but upstream of the NO_x storage catalytic converter ~~(2), wherein the~~ said SCR catalytic converter ~~(3) is designed~~ being operable to reduce NO_x contained in the exhaust gas using NH₃ that has been generated by the NO_x storage catalytic converter.

21. (Previously presented) The exhaust gas aftertreatment device as claimed in claim 20, further comprising an oxidation catalytic converter that is arranged downstream of the NO_x storage catalytic converter.

22. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 21, further comprising a three-way catalytic converter [(7)] that is arranged immediately downstream of the reforming unit.

23. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 20, further comprising a three-way catalytic converter [(7)] that is arranged immediately downstream of the reforming unit.

24. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 20, wherein the reforming unit [(1)] is designed as a catalytically active particulate filter.

25. (Currently amended) An exhaust gas aftertreatment device for a motor vehicle, said device comprising:

a reforming unit ~~(1) that is designed to~~ that generates hydrogen by at least one of steam reforming and partial oxidation of hydrocarbons, ~~wherein the said reforming unit (1) is being~~ arranged directly, in a full flow of exhaust gas, in a main exhaust gas stream [(4)] of an internal combustion engine, ~~and wherein whereby~~ steam and residual oxygen ~~which that~~ are required necessary for reforming are derived from exhaust gas; and

an exhaust gas catalytic converter, ~~wherein the exhaust gas catalytic converter is~~ arranged in the main exhaust gas stream [(4)] downstream of the reforming unit [(1)] , ~~wherein the said~~ exhaust gas catalytic converter includes

being operable to perform the functions of an NO_x storage catalytic converter ~~[[2]]~~ and an SCR catalytic converter ~~[[3]]~~.

26. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 25, further comprising an oxidation catalytic converter ~~that is~~ arranged downstream of the exhaust gas catalytic converter.

27. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 26, further comprising a three-way catalytic converter ~~(7) that~~ is arranged immediately downstream of the reforming unit.

28. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 25, further comprising a three-way catalytic converter ~~(7) that~~ is arranged immediately downstream of the reforming unit.

29. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 25, wherein the reforming unit ~~[[1]]~~ is designed as a catalytically active particulate filter.

30. (Currently Amended) An exhaust gas aftertreatment device for a motor vehicle, said device comprising a reforming unit ~~[[1]] that is designed to~~ generates hydrogen by at least one of steam reforming and partial oxidation of hydrocarbons, wherein:

the reforming unit [(1)] is arranged directly, in a full flow of the exhaust gas in a main exhaust gas stream [(4)] of an internal combustion engine[.];
~~and wherein~~

steam and residual oxygen ~~which~~ that are ~~required~~ necessary for reforming are derived from exhaust gas; and

a DENOX catalytic converter (8) ~~that is~~ arranged in the main exhaust gas stream [(4)] downstream of the reforming unit [(1)].

31. (Currently amended) The exhaust gas aftertreatment device as claimed in claim 30, wherein the reforming unit (1) ~~is designed as~~ comprises a catalytically active particulate filter.

32. (Currently amended) A method for operating an exhaust gas aftertreatment device, the method comprising:

using hydrogen to reduce NO_x in exhaust gas from an internal combustion engine of a motor vehicle by way of a catalytic converter;

generating the hydrogen onboard the motor vehicle by at least one of steam reforming and partial oxidation of hydrocarbons [.]; wherein [the]

steam and residual oxygen ~~which~~ that are ~~required~~ necessary for the reforming ~~originates~~ are supplied from the exhaust gas; and ~~carrying out~~

the reforming is performed by a reforming unit arranged directly in full flow of exhaust gas, in a main exhaust gas stream $[(4)]$ from the internal combustion engine.

33. (Currently amended) The method as claimed in claim 32, further comprising setting the temperature of the reforming unit $[(1)]$ by an air/fuel ratio and determining oxygen concentration in the exhaust gas using a wide-band lambda sensor.

34. (Currently amended) The method as claimed in claim 33, further comprising operating the reforming unit $[(1)]$ at an air/fuel ratio in the range from approximately $0.5 < \lambda < 1.0$.

35. (Currently amended) The method as claimed in claim 34, further comprising setting a quantity of fuel which is fed to the reforming unit $[(1)]$ via at least one of i) inside the engine, and ii) with a secondary injection $[(5)]$ into the exhaust gas stream upstream of the reforming reactor, and/or by a combination of the two options.

36. (Currently amended) The method as claimed in claim 33, further comprising setting a quantity of fuel which is fed to the reforming unit $[(1)]$ via at least one of i) inside the engine, and ii) with a secondary injection $[(5)]$ into the exhaust gas stream upstream of the reforming unit, and/or by a combination of the two options.

37. (Currently amended) The method as claimed in claim 32, further comprising setting a quantity of fuel which is fed to the reforming unit ~~[[1]]~~ via at least one of i) inside the engine, and ii) with a secondary injection ~~[[5]]~~ into the exhaust gas stream upstream of the reforming unit, and/or by a combination of the two options.